STOEL RIVES LLP
ATTORNEYS AT LAW

900 S.W. Fifth Avenue, Suite 2600
Portland, Oregon 97204
main 503.224.3380
fax 503.220.2480
www.stoel.com

THOMAS R. WOOD
Direct (503) 294-9396
trwood@stoel.com

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VIA US MAIL AND VIA FAX

Mr. Peter Douglas
Executive Director
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219

Re: Coastal Commission Comments on Proposed EPA Air Permit

Dear Mr. Douglas:

BHP Billiton LNG International, Inc ("BHP") has reviewed your letter to the U.S. Environmental Protection Agency ("EPA") regarding the draft air permit for Cabrillo Port. BHP appreciates your concern and the effort you and your staff have put into reviewing and considering the draft permit. BHP agrees that there are parts of the permit and Statement of Basis that could benefit from clarification and/or modification, but overall believes that the draft permit will protect California's air quality and set a dramatic new standard for the level of control on LNG facilities. Although it is not our role to respond to comments made to EPA on the draft Cabrillo Port air permit, we believe that our responses might assist the Coastal Commission to understand the appropriateness of EPA's permitting decisions and the measures in place to ensure Cabrillo Port does not negatively impact California's air quality. Therefore, we respectfully provide the following thoughts and comments in relation to each of the comments the Coastal Commission submitted in its August 3, 2006 letter. We have addressed each of your comments in the order they appear in your letter.

1. Consistency Certification

BHP does not agree that it is the Commission's role to independently evaluate how EPA has applied the Clean Air Act in order to concur in BHP's consistency certification. The Deepwater Ports Act specifically delegates to EPA the role of determining whether the deepwater port license conforms with all applicable provisions of the Clean Air Act. 33 U.S.C. § 1503(c). The Deepwater Ports Act does not suggest that this process be performed twice, first by EPA and then by the Coastal Commission. Such redundant review was not the intent of the law's drafters.

However, this is a point of law beyond this letter's intention to clarify the factual and procedural assertions in regard to the draft Cabrillo Port air permit.

2. Applicable Permitting Requirements

The Coastal Commission requested that EPA explain in greater detail the basis for concluding that the requirement for emission offsets and Best Available Control Technology ("BACT") do not apply to Cabrillo Port. BHP does not disagree that more extensive discussion is merited. Because of the fact that we have considered this issue at great length, we thought it appropriate to explain our perspective and to clarify some misconceptions that appear in your text.

In reading the discussion below, the Commission should be aware that in drafting its exception from New Source Review found in Rule 26.3(A)(3), the Ventura County Air Pollution Control District ("VCAPCD" or "District") expressly stated that its goal was to exempt the islands from the District's New Source Review program (i.e., District Rule 26.2) specifically because the islands are outside the federal nonattainment area. This change meant any source located on one of the islands or locating within three miles of one of these islands would not be subject to District Rule 26.2. This change also meant that any future changes or additions at or near San Nicolas Island—the largest source of NOx emissions in the County (based on actual emissions)—would be exempt from New Source Review. This was an intentional move by the District to offer regulatory relief to new or modified sources outside the federal nonattainment area.

Cabrillo Port is not proposed to be located in Ventura County. However, the Deepwater Ports Act requires that the laws of the United States be applied "as if such port were an area of exclusive Federal jurisdiction located within a State." 33 U.S.C. § 1518(a)(1). The Deepwater Ports Act also states that the law of the nearest adjacent coastal State applies to any deepwater port "to the extent applicable and not inconsistent with any provision or regulation under [the Deepwater Ports Act] or other Federal laws and regulations..." 33 U.S.C. § 1518(b). EPA carefully analyzed these two mandates and issued a written determination that sections 110 and 118 of the Clean Air Act dictate that those local regulations that are part of the State Implementation Plan are the regulations deemed consistent with Federal law and therefore to be applied to a deepwater port. *See*, Letter from Gerardo Rios (EPA Region 9) to Steve Meheen (BHP) (June 29, 2004). In that same letter, EPA stated that, depending on the facts of the situation, EPA might determine that it would be inconsistent with the CAA, or not "applicable" within the meaning of section 1518 of the DPA, to apply the nonattainment status of the onshore area to a deepwater port. *Id.* at 11. This statement demonstrates EPA's position that it must apply the local regulations in the context of facts it learns about the project. At the time of the

June 2004 letter, EPA was of the opinion that this meant that Rule 26.2 applied to Cabrillo Port. However, the agency learned more about the project and the history of the Rule 26.3(A)(2) exemption and it ultimately reconsidered its initial position, concluding that Rule 26.2 was inapplicable. While some condemn EPA for keeping an open mind, we consider this to be the natural process that an agency is supposed to engage in of gathering facts and adjusting conclusions as new information comes to light.

By regulating Cabrillo Port the same as if it was three miles from Anacapa Island, EPA applied the substantive elements of the District's rules consistent with the intent of the drafters. This is what is required by the Deepwater Ports Act.

a. Offshore Ventura County is in Attainment for All Pollutants

Your August 3rd letter focuses on the distinction between attainment and nonattainment areas and so we begin with a discussion of the designation process. With one key exception, each part of the United States is identified as either attainment, nonattainment or unclassified for every federal criteria pollutant.[1] Criteria pollutants include ozone, PM_{10}, $PM_{2.5}$, NO_2, SO_2, carbon monoxide and lead. The process for deciding how an area will be designated starts with the state and local jurisdictions. They must evaluate whether to recommend that all or just one portion of each county must be designated as attainment v. nonattainment. For purposes of the 8-hour ozone standard, the base presumption is that where a monitor showing a violation exists anywhere in a county, the whole county is to be designated as nonattainment. However, where there are distinguishing characteristics between the two portions of a county, the State can recommend that they have different classifications. EPA has published criteria for evaluating whether one portion of a county should be treated differently from another. In this guidance, EPA identifies the following 11 points of consideration:

1. Emissions and Air Quality in Adjacent Areas
2. Population Density and Degree of Urbanization Including Commercial Development (e.g., shows a significant difference from surrounding areas)
3. Monitoring Data Representing Ozone Concentrations in Local Areas and Larger Areas (i.e., urban or regional scale)
4. Location of Emissions Sources
5. Traffic and Commuting Patterns

[1] EPA does not discriminate between areas designated as "attainment" and areas designated as "unclassified." Therefore, this letter uses only the classifications of "attainment" and "nonattainment."

6. Expected Growth (including extent, pattern and rate of growth)
7. Meteorology (weather/ transport patterns)
8. Geography/Topography (e.g., mountain ranges or other air basin ranges)
9. Jurisdictional Boundaries
10. Levels of Control of Emissions Sources
11. Regional Emission Reductions Impacts

Boundary Guidance on Air Quality Designations for the 8-Hour Ozone National Ambient Air Quality Standards; US EPA (March 28, 2000). These criteria are what the state authorities were instructed to use to determine whether to treat sources in one part of a county differently from sources in another part of a county. Based on these criteria, the state's Governor recommends to EPA the appropriate designations in the state. EPA then evaluates those recommendations and independently determines whether to designate the state as recommended by the Governor. This federal review is to ensure national consistency. If EPA disagrees with the Governor's recommendations, EPA gives the state notice and an ability to comment informally. After reviewing any comments, the formal designations are published as final rules.

All of the country, with one key exception, has been designated using this process. Because only those portions of the country under state or tribal control received recommendations and were designated, certain offshore portions of the country outside state or tribal jurisdiction were never designated. As a result, these offshore areas are neither attainment nor nonattainment. This was the case for the area where Cabrillo Port is proposed to be located. The area was simply left out of the process. Consequently, EPA concluded that the Cabrillo Port area has no designation at this time. *See*, Letter from Amy Zimpfer (U.S. EPA Region 9) to Mark Prescott (U.S. Coast Guard) (November 3, 2005).

Ventura County has areas that are designated as attainment for certain ambient air quality standards as well as areas that are designated nonattainment. All of Ventura County is currently in attainment with the federal ambient air quality standards for particulate (both PM_{10} and $PM_{2.5}$), NO_2, SO_2, carbon monoxide and lead. However, the onshore portions of Ventura County were initially designated a severe nonattainment area under the federal 1-hour ozone standard. Ventura County was required to demonstrate by November 15, 2005 that it was in attainment for the 1-hour standard. The County was well on its way to doing so with no 1-hour ozone standard violations during the 2000-2002 or the 2001-2003 periods. See, April 21, 2004 Letter from CARB to EPA Region 9 submitting 2004 Air Quality Management Plan. Ventura County predicted that it would be redesignated as an attainment area for the 1-hour ozone standard. However, the onshore portion of the County was designated as a moderate nonattainment area for the 8-hour ozone standard when EPA issued the new 8-hour designations

on April 30, 2004. The District chose not to submit its attainment designation application for the 1-hour standard even though it appeared qualified to do so. The 1-hour ozone standard was revoked on June 15, 2005.

Under the 8-hour ozone standard, only the onshore portions of Ventura County were designated as part of the moderate nonattainment area. As noted above, the default assumption is that all portions of a county should share the same attainment (or nonattainment) designation. However, in certain unique situations EPA will vary from that default presumption based on consideration of the 11 points above (referred to as an "11 point analysis"). The VCAPCD, the California Air Resources Board and EPA analyzed the offshore portions of Ventura County and concluded that they are in attainment with all Federal standards. In designating areas under both the 1-hour and 8-hour standards, the VCAPCD, the California Air Resources Board and EPA recognized that the Ventura County mainland airshed is separate and distinct from the airshed that encompasses the offshore islands of San Nicolas and Anacapa (part of the Channel Islands). In its July 14, 2000 designation recommendations under the 8-hour ozone standard, the California Air Resources Board ("CARB") stated:

> "Like the existing one-hour ozone nonattainment area, the Ventura eight-hour nonattainment area would include Ventura County, excluding Anacapa and San Nicolas Islands (two of the Channel Islands). The Channel Islands are attainment for the eight-hour ozone standard, as shown by the monitor located on Santa Rosa Island."

In its December 3, 2003 letter identifying its intended 8-hour ozone designations, EPA included all of Ventura County in the nonattainment area. In its February 4, 2004 response, CARB pointed out that the islands of San Nicolas and Anacapa are not part of the nonattainment area, a point that EPA acknowledged in the final designations published April 15, 2004.

The offshore portions of Ventura County have always been considered attainment for both the 1-hour and the 8-hour ozone standards. Ozone, hydrocarbons, SO_2 and NOx were all monitored on Anacapa Island from 1988 to 1992, when that station was removed. The Anacapa Island monitor data for 1990-1992 indicate that Anacapa Island was easily attaining the 1-hour and 8-hour standards. For example, the design value was 72 ppb for the 1990 to 1992 period (as compared to the 85 ppb standard).[2] The Santa Rosa Island monitor continues to indicate that the

[2] The "design value" is the computed value that is used to determine compliance with an ambient air quality standard. For the 8-hour ozone standard, the design value is computed as 3 year average of the 4th high daily maximum 8-hour averages.

offshore portions of the County are easily attaining the 8-hour ozone standard. The design value for Santa Rosa Island for 2002 through 2004 was 68 ppb—again dramatically below the 85 ppb 8-hour ozone standard. Equally telling is the fact that the ozone levels along the Ventura County shoreline are extremely low; the design value at the Emma Wood State Beach monitor for 2003 through 2005 was 68 ppb. The Emma Wood monitor has not experienced a single reading in the past eight years equal to or greater than the 8-hour standard of 85 ppb. The monitors in Ventura County that documented exceedances of the 8-hour ozone standard are the inland monitors that are most affected by onshore mobile sources. In summary, the Ventura County mainland is a moderate ozone nonattainment area based on inland issues, but the offshore portions of the County are designated attainment for all pollutants.

b. Regulation of Cabrillo Port Under Deepwater Ports Act

The Deepwater Ports Act states that the law of the nearest adjacent coastal state shall apply to a deepwater port "to the extent applicable and not inconsistent with any provision or regulation of this chapter or other Federal laws and regulations..." 33 U.S.C. § 1518(b). The Act also states that the laws of the United States must be applied "as if such port were an area of exclusive Federal jurisdiction located within a State." 33 U.S.C. § 1518(a)(1). EPA states in the Statement of Basis, as it stated to BHP Billiton in its June 29, 2004 letter (included in EPA's docket), that those local regulations that are incorporated into the State Implementation Plan are deemed consistent with Federal laws and regulations. Therefore, Federal requirements, in addition to local regulations incorporated into the State Implementation Plan, constitute the applicable requirements that apply to Cabrillo Port.[3] EPA determined early in the permitting

[3] EDC, at page 7 of its comments, misconstrues the state /local requirements that are federalized by the Deepwater Ports Act. As EPA stated in its June 29, 2004 letter, Section 1518(a) of the Deepwater Ports Act requires that the port be regulated as if it is located in an area of exclusive Federal jurisdiction within a State. Section 118 of the Clean Air Act specifies that in such areas it is the State Implementation Plan requirements that apply. EPA goes on to say that those State laws consistent with the Clean Air Act and Deepwater Ports Act are considered federalized and are the controlling law for a deepwater port. EPA concludes that they are applying the Clean Air Act and the District rules approved by EPA into the State Implementation Plan. EDC misconstrues the applicable requirements by repeatedly suggesting that requirements outside the State Implementation Plan are relevant to the regulation of a deepwater port.

process that for a variety of reasons, the State Implementation Plan requirements from Ventura County were the appropriate requirements for Cabrillo Port.[4]

EPA's role under the Deepwater Ports Act is to determine the substantive elements of the local State Implementation Plan and apply those requirements consistent with the underlying intent. There is no question that Cabrillo Port is located outside Ventura County and the Ventura County Air Pollution Control District; as a source located 14 miles offshore, it is by definition not within the County or District boundaries. The County rules cannot be applied in a strictly literal sense as they were not written with the intent that they would ever apply to a source located outside the County. If the District rules were literally applied, no permit would be required of Cabrillo Port as the District rules state that the new source review requirements apply only to sources located in Ventura County.[5] To apply the District rules in a literal manner would produce absurd results clearly at odds with the Deepwater Ports Act. Therefore, EPA's role is to extract the substantive requirements and craft a means of applying those requirements consistent with the underlying purpose of the rules. This role was identified to BHP early in the permitting process when EPA stated that, depending on the facts of the situation, EPA might determine that it would be inconsistent with the CAA, or not "applicable" within the meaning of section 1518 of the DPA, to apply the nonattainment status of the onshore area to a deepwater port. *See*, Letter from Gerardo Rios (EPA Region 9) to Steve Meheen (BHP) (June 29, 2004). This statement demonstrates EPA's position that it must apply the local regulations in the context of facts it learns about the project. At the time of the June 2004 letter, EPA was of the opinion that this

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[4] EDC, at page 8 of its comments, confuses the distinction between choosing the nearest adjacent coastal state and choosing the regulations within that state that apply to a deepwater port. EDC suggests that because Cabrillo Port is a few miles closer to the mainland than it is to Anacapa Island, that it must be regulated as if it is an onshore source. This argument is misguided. In determining whether to utilize the regulations that were written for a new source located on Anacapa Island or a new source located on the mainland, EPA clearly must use a more reasoned analysis than what is geographically closer. EPA instead considered factors such as similarity of intervening topography, meteorology, distance from shore and nature and type of emissions. EPA is well schooled in applying such criteria as these are the same criteria it applies to determine whether an area (such as the Channel Islands) must be included as part of a nearby nonattainment area. EPA appropriately applied to Cabrillo Port the Ventura County requirements that apply to the other offshore portions of the County.

[5] Rule 26(A) states: "Rule 26, which includes Rule 26.1 through 26.11, specifies the New Source Review provisions that are applicable to new, replacement, modified or relocated emissions units in Ventura County."

meant that Rule 26.2 applied to Cabrillo Port. However, as the agency learned more about the project and the history of the Rule 26.3(A)(2) exemption, it reconsidered its initial position and concluded that Rule 26.2 was inapplicable.

In the draft permit, EPA applied the District's New Source Review rules consistent with their intent. Rule 26.3(A)(2) exempts sources located on Anacapa Island and San Nicolas Island from the Rule 26.2 New Source Review requirements. Onshore Ventura County sources, by contrast, are subject to Rule 26.2. The exemption in Rule 26.3(A)(2) was intended to remove offshore sources from the nonattainment New Source Review program, a rational and justifiable policy choice given their location and surrounding air quality. This intent was explicitly stated by the air district when it adopted the exemption into the District's rules in 1998. The staff report for the exemption states:

> "Staff is proposing to exempt San Nicolas Island and Anacapa Island from nonattainment NSR because these areas are not included by the U.S.EPA in the nonattainment area of the District."

Ventura County Air Pollution Control District Revisions to Rule 26, New Source Review Final Staff Report at 1 (January 13, 1998). Later in the Staff Report, the District staff reiterated their intent:

> "Subsection A.2 of Rule 26.3 is proposed to be added to exempt San Nicolas Island and Anacapa Island from nonattainment NSR. These areas are not included by the U.S. EPA in the nonattainment area of the District."

Id. at 5. We believe that EPA spent considerable time analyzing how best to apply the County rules, and, specifically, Rule 26.3(A)(2), consistent with their intent. While the Commission notes that a general rule of thumb is to interpret exceptions narrowly, that guidance is inapplicable in this situation. The District made the policy choice to exempt offshore sources from New Source Review because they are not within the federal nonattainment area.[6] This

[6] EDC wrongly suggests that the District added the exemption in Rule 26.3(A)(2) with the expectation that it would never be used. This is not supported by the rulemaking record which specifically identifies that the benefit of adding the exemption will be to lower costs for the Navy. The EIR accompanying the rule change did suggest that future emission increases at San Nicolas Island would be small and would not have significant impact on air quality. This does not impact the relevance of the Rule 26.3(A)(2) exemption as the project is subject to

intent was specifically stated at the time of rule adoption. The District limited the exemption to San Nicolas Island and Anacapa Island, and sources located within three miles of these islands, because these islands were the only portions of the County that were in attainment.

EPA's role is to take the substantive District requirements and apply them in a rational manner to a source that was never anticipated when the rules were drafted. Based on the District's express intent to exempt sources outside the County's nonattainment areas from Rule 26, the only rational conclusion was to exempt Cabrillo Port from Rule 26 as well. The reason that the Rule 26.3(A)(2) exemption was limited to Anacapa Island, San Nicolas Island and the three mile band around each was that this was the extent of the offshore County jurisdiction. EPA cannot simply apply the local rules in a vacuum without recognizing that Cabrillo Port is not located in the County. In determining how to apply the local rules that handle different portions of the County differently, EPA's role is to decide whether the intent of the Rule 26.3(A)(2) exemption was to exclude just the two islands or all portions of the County outside the Federal nonattainment area. Given the specific wording of the District Staff Report regarding the exemption, there is strong rationale and support to conclude, as EPA did, that the intent was to exclude those portions of the County outside the Federal nonattainment area. Therefore, in applying the District rules to a non-District source, EPA's decision to exempt Cabrillo Port from the District's New Source Review program is likewise well founded and appropriate.

EPA's decision to apply the exemption for San Nicolas and Anacapa Islands to Cabrillo Port based on the clear intent expressed by the District when it promulgated Rule 26.3(A)(2) is clearly warranted. The same outcome is derived if EPA had considered the factors identified for an 11 point analysis which is used by EPA nationwide for these types of decisions (see discussion at page 3)—i.e., the factors used to distinguish one portion of a county from another for purposes of the 8-hour ozone standard. Using this approach, Cabrillo Port would be regulated the same as a new source locating within three miles of one of the two islands in Ventura County. Each of these criteria are discussed individually below.

1. Emissions and Air Quality in Adjacent Areas

The first factor used by EPA nationwide to distinguish parts of a county under the ozone standard is consideration of air quality in adjacent areas. As noted above, the air quality in the

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CEQA and the Department of State Lands (as lead agency) is evaluating the proposed emission increases and any mitigation that will avoid a significant impact. As a result of that process, sufficient mitigation has been proposed to avoid significant impacts from the project.

Channel Island and coastal portions of Ventura County is documented as healthy by the monitoring data. EPA and the California Air Resources Board have previously concluded that the Santa Rosa Island monitor is illustrative of offshore air quality. The air quality in the area surrounding Cabrillo Port as well as the nature of emissions is consistent with that in Channel Islands National Park and San Nicolas Island. Therefore, air quality surrounding the proposed Cabrillo Port location support the project as being regulated consistent with Anacapa and San Nicolas Islands.

2. Population Density and Degree of Urbanization Including Commercial Development (e.g., shows a significant difference from surrounding areas)

The second factor also supports the concept that Cabrillo Port should be treated consistent with Anacapa and San Nicolas Islands. The population of Cabrillo Port will typically be approximately 30 people. This is consistent with Anacapa Island and significantly smaller than the population of San Nicolas Island. By contrast, onshore Ventura County has a dramatically larger population and expectation of growth. A key aspect of this factor is the degree to which significant expansion is anticipated in the area as a result of follow-up commercial development. No significant additional development is authorized at this time and there is no possibility of neighboring development as a result of Cabrillo Port given that it is an offshore location with a wide exclusion zone.

3. Monitoring Data Representing Ozone Concentrations in Local Areas and Larger Areas (i.e., urban or regional scale)

Monitoring data document that the offshore and coastline areas are comfortably in attainment. Modeling has indicated that the limited project emissions will not have a material impact to onshore air quality.

4. Location of Emissions Sources

Cabrillo Port will be located the same distance from shore as Anacapa Island and closer to shore than San Nicolas Island. Emissions associated with the Channel Islands National Park are also comparable with those of Cabrillo Port, based on the 1998 (the year Rule 26.3(A)(3) was adopted) emissions inventory performed by the National Parks Service. For example, the 1998 Channel Islands National Park emissions inventory estimated approximately 97 tons per year of NOx emissions from stationary and mobile source activities associated with park operations. *See*, 1998 Air Emissions Inventory; Channel Islands National Park; California; U.S. National

Park Service (August 2000). By contrast, Cabrillo Port has dramatically lower emissions than the naval base on San Nicolas Island, which is permitted for just over 205 tons per year of NOx emissions. Cabrillo Port will be permitted for only 68 tons per year of NOx emissions.

Cabrillo Port will be located several miles further offshore than a source could be located under the District rules without triggering New Source Review. Anacapa Island is located approximately the same distance off the Ventura County mainland as Cabrillo Port. However, any source located within three miles of Anacapa Island would be exempt from New Source Review. Therefore, a new source located 3 miles closer to shore than Anacapa's easternmost boundary would be exempt from New Source Review and would require neither offsets nor Best Available Control Technology. The fact that Cabrillo Port's emissions are comparable to emissions elsewhere on the Channel Islands and that it is proposed to be located further offshore than the easternmost edge of the area exempted from New Source Review further supports consideration of Cabrillo Port as if it were one of the islands.

5. Traffic and Commuting Patterns

To the extent that there are traffic and commuting patterns for either Cabrillo Port, San Nicolas or Anacapa Island, they are identical. All three locations are serviced by vessels coming out of Port Hueneme. San Nicolas and Cabrillo Port will also see vessels arriving from international waters. These traffic patterns are fundamentally different from those that occur on the mainland and support regulating Cabrillo Port consistent with the islands.

6. Expected Growth (including extent, pattern and rate of growth)

No growth beyond that stated in the draft air permit is authorized for Cabrillo Port. The construction and operation of Cabrillo Port will not result in changes in the growth patterns in the County.

7. Meteorology (weather/ transport patterns)

Anacapa and San Nicolas Islands are exposed to the same meteorological patterns that affect the proposed Cabrillo Port location. The offshore meteorology is relatively consistent along the entire Southern California coast. There are no expected differences between the weather/transport patterns that affect Anacapa and San Nicolas Islands and the weather/transport patterns that would affect Cabrillo Port. Therefore, this factor supports regulating Cabrillo Port the same as the islands in Ventura County.

8. Geography/Topography (e.g., mountain ranges or other air basin ranges)

The geography/topography of the proposed Cabrillo Port location is the same as that for the other Channel Islands. Cabrillo Port will be surrounded by ocean with no nearby topographical features. This is identical to Anacapa and San Nicolas Islands. By contrast, the onshore areas of Ventura County are characterized by a mix of steep mountains and valleys opening towards a narrow coastal plateau in certain areas. Therefore, this factor provides supports regulating Cabrillo Port the same as the islands in Ventura County.

9. Jurisdictional Boundaries

Cabrillo Port is proposed to be located within a different set of jurisdictional boundaries from the Channel Islands to the extent that it is outside of Ventura County. However, Cabrillo Port is proposed for location offshore from mainland Ventura County, as are the Channel Islands. The fact that the proposed Cabrillo Port location is within the same offshore area as the islands that are exempted from new source review by the District rules strongly supports regulating the project the same as the islands.

10. Levels of Control of Emissions Sources

Cabrillo Port is proposing to install a level of controls that is equivalent to Best Available Control Technology.[7] Associating Cabrillo Port with the mainland instead of the offshore

[7] EDC incorrectly suggests that BHP is proposing controls that are less than BACT for the submerged combustion vaporizers. EDC states that Selective Catalytic Reduction ("SCR") is proposed for two floating offshore facilities in the northeastern U.S. and that 10 ppm NOx should be considered BACT. EDC letter at 16 and July 31, 2006 Powers Letter. The EDC engineer is extremely misleading in his characterization of the controls proposed for the Neptune Suez and Northeast Gateway projects and the emission reductions achieved. These facilities use shell and tube vaporization—less efficient gasification technology that relies on marine boilers (which are amenable to SCR technology). As a result, the facilities referenced by EDC use significantly more fuel in order to gasify an equivalent amount of LNG. The gasification technology proposed by Neptune Suez and Northeast Gateway results in more NOx emissions—even after the use of 90% control technology—then what is proposed by BHP. This is easily demonstrated. The Northeast Gateway project is asking to be permitted for an annual average sendout of 400 million cubic feet of gas per day. This is exactly half the average daily sendout

portions of the County would not result in any change in the level of control or the permit requirements to operate that control equipment so as to minimize emissions. Emissions from the facility will be an order of magnitude lower than emissions from a smaller facility operating in the Gulf. This is the result of the comprehensive emission control technology proposed for the facility.[8]

11. Regional Emission Reductions Impacts

Cabrillo Port will not cause increased regional emissions or cause significant impacts for two reasons. One, the emission sources are comprehensively controlled. Second, Cabrillo Port is reducing marine diesel emissions such that NOx emissions in the region will experience a net decrease. Therefore, there is no reason to associate Cabrillo Port with the mainland portions of the County and apply onshore New Source Review in order to minimize regional emission reduction impacts.

An analysis of the factors used to determine ozone nonattainment area boundaries supports regulating Cabrillo Port consistent with Anacapa and San Nicolas Islands. EPA acted prudently in exercising its inherent judgment and applying the same requirements to Cabrillo Port that apply to new sources locating on or within three miles of the offshore islands.

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of 800 million cubic feet per day that is the basis for Cabrillo Port. However, the projected NOx emissions from Northeast Gateway are 49 tons per year. The projected NOx emissions from Cabrillo Port are 67 tons per year. This means that Northeast Gateway would emit 245 lbs/mcfd while Cabrillo Port would emit only 167.5 lbs/mcfd. In short, the controlled shell and tube vaporization technology with SCR emits 30 percent more NOx on a gas sendout basis than the SCV technology. To suggest that SCR on shell and tube vaporization results in lower emissions than the technology proposed by BHP is simply untrue.

[8] EDC incorrectly complains that the draft permit contains inadequate provisions to ensure that the SCV and generator engine emissions will result in the projected emission levels. EDC letter at 16. BHP proposed and EPA is requiring continuous emission monitors on the SCV and generator engine exhaust. There is nothing that can be installed that is better than a continuous emission monitor to ensure that the emission limits will be complied with. EDC's complaint has no merit.

b. Cabrillo Port Emissions

1. Cabrillo Port Emissions Compared to County Inventory

We believe that the Coastal Commission has been provided inaccurate data in concluding that Cabrillo Port will adversely impact the onshore nonattainment area. In the August 3rd letter, the Coastal Commission inaccurately states that "NOx emissions from the proposed project represent an increase of approximately 8.4 percent of all District-regulated emission sources..." For this statement to be true, Ventura County would have to have annual emissions of only 798 tons per year of NOx. In fact, the 2005 Ventura County NOx emissions inventory identified 22,203 tons per year and 61 tons per day of emissions from the top 25 source categories alone. It is not clear where the Coastal Commission derived its figure, but it is clearly not accurate.

2. Carrier Emissions

The Coastal Commission also misstates the emissions from the vessels. BHP previously met with you and other Coastal Commission staff on May 17, 2006. At that meeting the question was raised whether the LNG carrier emissions were accurately estimated. As we explained, BHP was committing to exclusive use of LNG fired engines on the LNG carriers where those vessels were in federal waters. As we also explained, the LNG fired engines require that 1 percent of the fuel be diesel, a fuel usage that is included in the estimated emissions. The commitment to operate the carriers in this manner while within Federal waters is explicitly stated in the proposed air permit project description and operation inconsistent with this description would be considered operation inconsistent with the application—something prohibited by the permit.

Contrary to what is suggested in the Commission's comment letter, the BHP carriers will never operate on diesel (beyond the 1% pilot fuel) while in Federal waters. Staff previously questioned whether carriers would need to switch to fuel oil when approaching the FSRU. BHP clarified that modern dual fuel engines can propel the ship up to the point where the tugs take over without reverting to fuel oil (other than the 1 percent pilot fuel) and that BHP has no intention of having the carriers operate on fuel oil as they approach the FSRU. In the August 3rd letter the Coastal Commission suggests without support that "EPA's emission estimates also do not incorporate the correct fuel for the LNG carriers." Commission Letter at 3. We are unaware of any basis for this statement as the carrier emission calculations include the pilot fuel usage. The letter then indicates in the next sentence that "some ships will need to operate on fuel oil only within District waters." Commission Letter at 4.

The strong inference is that the carriers will operate on fuel oil in District waters—a clear misstatement as the carriers will never come close to District waters. The tugs and crew boat are the only project related vessels that will operate in District waters once Cabrillo Port is operational. The Coast Guard is still evaluating the use of natural gas fired support vessels. If the choice is made to use California diesel fired support vessels so as to avoid LNG storage on vessels entering port, BHP has committed to control NOx and ROC emissions such that there is no difference between whether diesel or natural gas is used.

Perhaps the Coastal Commission's suggestion that the air permit does not accurately estimate project emissions comes from a concern other than the fuel for the LNG carriers. If so, we are happy to meet with your technical staff to review the emissions inventory at your earliest convenience.

3. Cabrillo Port Will Move Region Towards Attainment

The Coastal Commission correctly focuses on the need to decrease marine emissions—something that BHP will pioneer in several ways. The Coastal Commission notes both how important it is to reduce emissions in Southern California and how emissions from marine shipping activities delayed Santa Barbara's attainment designation. Commission Letter at 4. BHP has committed to measures that will reduce emissions in general and clean up marine emissions in particular. BHP has agreed that its carriers will operate on natural gas when in federal waters. BHP has also committed to using low emission support vessels. BHP has additionally entered into contracts to repower two line haul tugs operating off the California coast that will result in removing over 100 tons per year of NOx emissions from the area offshore of Ventura, Los Angeles and Santa Barbara Counties alone.[9] These tug emission reductions will occur closer to shore than the Cabrillo Port is proposed to be located and closer to shore than any carrier will ever travel. As a result of repowering the two line haul tugs, over 200 tons per year of NOx emissions will be removed from California Coastal Waters. BHP's modeling demonstrates that project related emissions will have an insignificant impact on

[9] BHP has signed contracts with the owners of two line haul tug owners. These companies haul large petroleum barges along the shipping lanes off Ventura, Los Angeles and Santa Barbara Counties. BHP is paying these companies to replace the propulsion engines on the two tugs with new low emitting engines. These tugs currently rely on old diesel engines to propel the vessels along the coast shipping channels and into port. Each tug currently emits between 150 and 200 tons per year just in the process of hauling the petroleum barges (this does not include other job work performed in the area). BHP's repower projects will reduce those emissions to roughly half of what they are today.

onshore air quality. However, even if one does not believe the modeling, the net reduction in offshore emissions as a result of the tug repowering projects and the commitment to the use of natural gas fired carriers and low emission support vessels will ensure an improvement in regional air quality.

3. Prevention of Significant Deterioration

In its comments, the Coastal Commission states that it believes that Cabrillo Port should be regulated as a "fuel conversion plant" and that BHP did not properly calculate potential to emit to reflect the full capacity of the facility. Commission Letter at 4-6. For the reasons stated below, both beliefs are inconsistent with established law under the Clean Air Act.

a. Cabrillo Port is not a Fuel Conversion Plant

The Clean Air Act was enacted by Congress in 1970. At that time, the statute did not include specific New Source Review requirements. In 1974, EPA decided to develop the first national New Source Review rule. This new program required major new sources of total suspended particulate and/or sulfur dioxide to install the best available control technology. This program only applied to sources in one of 19 source categories, one of which was "fuel conversion plants." The 19 source categories were those source categories for which new source performance standards ("NSPS") were proposed or promulgated at the time. Therefore, EPA had a clear idea of what source categories it intended for each of the original nineteen categories.

In 1977, Congress modified the Clean Air Act to incorporate an expanded version of EPA's regulations into the statute. The 1977 amendments formed the basis of the attainment and nonattainment new source review program that we have today. The portion of the statute and underlying rules applying to attainment areas is referred to as the Prevention of Significant Deterioration ("PSD") program. The PSD rules appear in 40 C.F.R. 52.21. Only "major stationary sources" are subject to the PSD program. The term "major stationary source" is defined based on whether a stationary source has the potential to emit either 100 or 250 tons per year or more of a regulated New Source Review pollutant. Any new stationary source with the potential to emit less than 100 tons per year of all of the New Source Review pollutants will not trigger PSD. A source with the potential to emit between 100 tons per year and 250 tons per year of any single New Source Review pollutant is subject to PSD only if it is in one of the 28 source

categories designated by the rule.[10] Any source with the potential to emit 250 tons per year or more of any single New Source Review pollutant is subject to PSD.

Cabrillo Port is not within any of the designated source categories. In your letter you suggest that Cabrillo Port should be considered a "fuel conversion plant." Commission Letter at 5. Although the term "fuel conversion plant" is not defined in the New Source Review rules, significant precedent indicates that this is not the case. Fuel conversion plants were identified under EPA's original 1974 PSD rules. When the source category of fuel conversion plants was added to the major source category, it referred to coal gasification plants and oil shale manufacturing plants. LNG regasification was not a source subject to New Source Performance Standards.

Questions were raised asking for clarification regarding what was within the fuel conversion plant source category. Therefore, shortly after drafting this category, EPA issued guidance describing what it intended. In that 1976 guidance document, EPA stated:

> "Fuel conversion plants are defined for purposes of PSD as those plants which accomplish a change in state for a given fossil fuel. The large majority of these plants are likely to accomplish these changes through coal gasification, coal liquefaction, or oil shale processing. The recently promulgated NSPS governing new coal preparation plants regulate most particulate emissions from pre-gasification or liquefaction operations and thereby define BACT for them. NSPS for

[10] The 26 source categories are: (1)Fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input, (2) coal cleaning plants (with thermal dryers), (3) Kraft pulp mills, (4) Portland cement plants, (5) primary zinc smelters, (6) iron and steel mill plants, (7) primary aluminum ore reduction plants, (8) primary copper smelters, (9) municipal incinerators capable of charging more than 250 tons of refuse per day, (10) hydrofluoric acid plants, (11) sulfuric acid plants, (12) nitric acid plants, (13) petroleum refineries, (14) lime plants, (15) phosphate rock processing plants, (16) coke oven batteries, (17) sulfur recovery plants, (18) carbon black plants (furnace process), (19) primary lead smelters, (20) fuel conversion plants, (21) sintering plants, (22) secondary metal production plants, (23) chemical process plants, (24) fossil fuel boilers (or combinations thereof) totaling more than 250 million British thermal units per hour heat input, (25) petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels, (26) taconite ore processing plants, (27) glass fiber processing plants, and (28) charcoal production plants. 40 CFR 52.21(b)(1)(i)(a).

> both SO_2 and PM already exist for the boilers which are necessary in most fuel conversion operations to generate process steam. An SSEIS for coal gasification plants is being drafted with the intent to include the gasification process itself for sulfur and HC emissions in cases where pipeline quality gas would be produced."

Clarification of Sources Subject to Prevention of Significant Deterioration (PSD) Review; from D. Kent Berry, (U.S. EPA) to Asa B. Foster, Jr. (U.S. EPA) (January 20, 1976). This guidance document clearly states that the classification "fuel conversion plants" was intended to apply to facilities that changed the state of the fuel. There was no intent to pick up facilities that simply effected a phase change in order to make transportation more efficient. If that was the case, then every pipeline compressor would be considered a fuel conversion facility because the compressor similarly renders the gas more compact. If simple compression or phase change unaccompanied by some other conversion were intended to be included within the definition of fuel conversion facility, then EPA could and would have said so. Instead, the agency identified fuel conversion as the process of changing a material such as shale to oil or coal to methane. Such facilities truly convert a fuel. Speeding the natural warming process of natural gas without causing any sort of a conversion is not a fuel conversion process.

EPA has specifically addressed this point in relation to LNG terminals and similarly concluded vaporizers are not fuel conversion facilities as that term is used in the Clean Air Act and the PSD regulations. In permitting the Energy Bridge project, EPA considered at length whether LNG vaporization is a fuel conversion process. In a recent well reasoned opinion, EPA concluded that a fuel conversion process is one that will not occur without external activity. The agency ultimately concluded that the vaporization processes used at LNG terminals simply speeds up a naturally occurring process—it is a given that LNG will turn to gas on its own without the use of vaporization technology. Because the vaporization process occurs regardless of the LNG terminal process, EPA concluded that the vaporization of LNG cannot be a fuel conversion process. Request for Guidance on the Definition of Fuel Conversion Plants for the Purpose of Prevention of Significant Deterioration from Raqueline Shelton (U.S. EPA) to Guy Donaldson (U.S. EPA) (July 31, 2003). It is noteworthy that among the numerous LNG terminals to be permitted in this country since the PSD program was enacted, not one of those facilities was determined to be a fuel conversion plant.

We believe that the Coastal Commission correctly identified the keystone of what makes a facility a fuel conversion plant, but wrongly applied it to Cabrillo Port. As the Commission notes in its letter, what defines a fuel conversion facility is a "manufactured process change." In

order to have a fuel conversion plant, a source must manufacture a new type of fuel. This is the case in each of the examples that EPA has used of what is considered a fuel conversion process. Shale is manufactured into oil, coal is manufactured into methane, municipal solid waste is manufactured into a burnable gas. In each of these situations, one material is fed into the process and a different material, or a subset of the original material, emerge. The input could not be confused with the output and the input would not change into the output but for the fuel conversion process. In relation to natural gas, there is no such manufactured process change. Instead, you have natural gas as the input and natural gas as the output of the vaporization process. The only difference is one of temperature. Placing an ice cube in a glass of warm water is not a water conversion process, it is simply a matter of heat transfer. Granted, the warm water causes the ice cube to melt faster than it would have if left on the counter. However, speeding up the warming time does not cause the process to be akin to a process where one manufactures a new fuel from a raw material.

EPA is entitled to deference in interpreting the term "fuel conversion plant." EPA developed the term "fuel conversion plant" when it developed the initial PSD program in 1974. The term was subsequently adopted by Congress from EPA's rules as part of the 1977 Clean Air Act amendments. Given EPA's role in developing the term and the fact that Congress then adopted verbatim EPA's verbiage, EPA's interpretation of that term is entitled to substantial deference. Where EPA has concluded that the specific facility at issue is not a fuel conversion facility, it is inappropriate for another agency that lacks the regulatory history with the program to substitute its judgment for that of the agency that wrote the rule in the first place.

For these reasons, it is clear that Cabrillo Port is not a fuel conversion plant and is not in whole or in part subject to the 100 ton per year PSD threshold.

b. Potential to Emit < 250 Tons Per Year

The Coastal Commission suggests that Cabrillo Port's potential to emit is wrongly calculated, but inexplicably fails to recognize the very definition it quotes authorizes the approach utilized by EPA to limit the project's potential to emit. Commission Letter at 5. A fundamental concept underlying the 1978 New Source Review rules was that threshold determinations are made based upon potential to emit. This point was one of several that were litigated shortly after EPA issued rules reflecting the 1977 Clean Air Act amendments. In its seminal *Alabama Power* opinion, the D.C. Court of Appeals upheld the idea that potential to emit was a valid metric, but rejected EPA's proposed interpretation that potential to emit is blind to federally required controls or limits. *Alabama Power v. Costle*, 636 F.2d 323 (D.C. Cir. 1979). In response to the court's remand of the agency's definition of "potential to emit," EPA revised its approach stating

"Today's regulations recognize the ability of all federally enforceable limitations to constrain the potential to emit of a stationary source." 45 Fed. Reg. 52676, 52688 (August 7, 1980). The concept that federally enforceable limits restrict potential to emit is explicitly reflected in the definition of "potential to emit" quoted by the Commission in its comment letter.[11]

The Cabrillo Port permit will include federally enforceable conditions that will restrict potential to emit to below the major source thresholds. The Commission accurately states that Cabrillo Port has the physical capacity to handle up to 1.5 bcf per day. However, Section V.E of the draft permit includes explicit limits that limit the annual throughput to an average of 800 mcf per day. Similarly, while Cabrillo Port will have four Wartsila generator engines, there is an explicit limit in the draft permit restricting the project to only operating the equivalent of three of those units at any one time. BHP has in fact submitted comments requesting that these limits be made even clearer, but it is incontrovertible that the conditions create federally enforceable limits on potential to emit. Cabrillo Port's emissions are calculated based on the maximum operations allowed by these permit conditions. Therefore, the potential to emit has been accurately calculated based upon the conditions that restrict total facility operations and the potential to emit for each New Source Review pollutant is less than 250 tons per year.[12]

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[11] As EPA further explained when crafting the definition of "potential to emit" quoted by the Coastal Commission:

> " New sources are now allowed to avoid NSR for PSD and nonattainment areas by limiting their type or amount of operation. Moreover, potential to emit is now defined in the same way for new and existing stationary sources. The use of certain permit conditions also addresses the concerns raised regarding physical incapability and peak load of standby units. This is, source owners or operators can now agree to source-specific permit conditions to limit their operation as appropriate. Such conditions can make infrequent operation and other physically limiting factors outside the design capacity of an emissions unit legally enforceable and can thereby limit the applicability of NSR." 45 Fed. Reg. 52689.

[12] EDC incorrectly states that the emissions from the main generator engines were incorrectly calculated because they assume that the engines will operate at 90% load when the engines will purportedly only operate at 51.2% load. EDC letter at 19. This comment appears to intentionally try and mislead the public and the agencies. As EDC's consultant should be aware,

4. Secondary Particulate

The Coastal Commission's final comment is that the permit does not estimate potential impacts associated with the formation of secondary particulates. Commission Letter at 6. Primary particulates are particles emitted directly into the air as solid or liquid particles. Secondary particulates are particles that are formed in the atmosphere as the result of chemical reactions of gas phased precursors in the air. Secondary particulate formation and life-cycle are extremely complex and, as a result, EPA does not have a model that accurately reflects secondary particulate formation and dispersion. EPA proposed regulations addressing how secondary particulate should be addressed in implementing the $PM_{2.5}$ standard on November 1, 2005 (70 Fed. Reg. 65984). These regulations are only proposed at this time and there is no final regulation defining how the $PM_{2.5}$ standard should be implemented. However, just a few weeks ago EPA revised its General Conformity rules to address $PM_{2.5}$. 71 Fed. Reg. 40420 (July 17, 2006). In those final regulations EPA specified the treatment of both direct and secondary $PM_{2.5}$. Although these rules only apply in $PM_{2.5}$ nonattainment and maintenance areas, and Ventura County is designated in its entirety a $PM_{2.5}$ attainment area, these rules should provide a conservative means of assessing secondary particulate from the project. EPA determined that in order for there to be a significant impact on a $PM_{2.5}$ nonattainment or maintenance area, there would need to be a 100 ton per year or greater increase in direct $PM_{2.5}$ emissions, a 100 ton per year or greater increase in SO_2 emissions, a 100 ton per year increase in NOx emissions (unless NOx was determined by the state and EPA not to be a significant precursor) or a 100 ton per year increase in ROC or ammonia (only if the state or EPA has made a finding that they significantly contribute to the $PM_{2.5}$ problem in a given area). 40 CFR § 51.853(b)(1). As identified in the Cabrillo Port air permit application, direct emissions of $PM_{2.5}$ and emissions of each precursor are substantially below EPA's General Conformity significance threshold. Pending finalization of the $PM_{2.5}$ implementation rules, this is the best indicator that the secondary particulate impacts will be de minimis.

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no engine would be operated at a 51.2% load. As any qualified consultant should also know, the engines do not operate such that they all run at the same level. Engines will be brought online as load increases. If load is low, only one engine would run, rather than operating three engines at a substantially reduced load. Furthermore, as noted above, the engine exhaust will be continuously monitored and so if emissions are not maintained below the limits, EPA will be aware of that fact and can take enforcement action or shut the units down.

5. Conclusions

The Coastal Commission's comments to EPA on the draft Cabrillo Port air permit focus almost exclusively on EPA's choice not to require major New Source Review. BHP believes that EPA applied the best interpretation of the Deepwater Ports Act and the Clean Air Act in determining the applicable requirements in the draft permit. By utilizing Best Available Control Technology and the reducing marine vessel emissions in California Coastal Waters by an amount greater than what will be emitted by the project, BHP is ensuring that the air quality will be better if Cabrillo Port is built.

We appreciate your concern about the Cabrillo Port air permit and look forward to discussing these points further at our meeting on September 6 in your offices.

Sincerely,

Thomas R. Wood

TRW:nh

cc: Ms. Alison J. Dettmer
Ms. Renee Klimczak
Mr. Rick Abel